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(21) Application number : 03-281881 (71) Applicant : OKI ELECTRIC IND CO LTD

(22) Date of filing : 03.10.1991 (72) Inventor : TANAKA HIROYUKI
INOUE NOBUHIKO
TAKAHASHI MASASHI

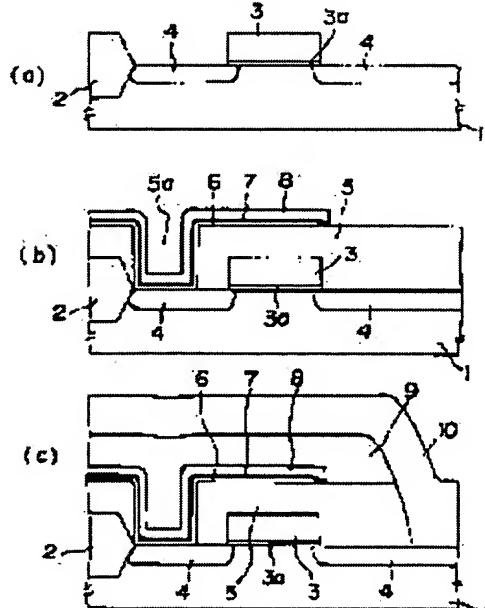
(54) MANUFACTURE OF SEMICONDUCTOR DEVICE

(57) Abstract:

PURPOSE: To provide a manufacturing method of a semiconductor device which enables easy formation of an extremely thin capacitor insulating film of a low defective density and a low leak current and wherein an increase of a cell capacity can be expected.

CONSTITUTION: After a gate electrode 3 and a source/drain 4 are formed on a semiconductor substrate 1, an SiO₂ film 5 is formed all over and a cell contact 5a is formed. Then, after a storage electrode 6 and a silicon nitride film 7 which becomes a capacitor insulating film are formed one by one and annealed at a high temperature, a surface of the silicon nitride film is oxidized in water vapor atmosphere and a cell plate electrode 8 is formed on an upper surface thereof.

Thereafter, a BPSG 9 is formed all over and an aluminum 10 is formed on an upper surface thereof.



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